

Local Poverty and Development Gaps : A Dual-Threshold Decomposition within the FGT Framework

Application to Mayotte, the Newest EU Outermost Region (OR).

Since Sen's seminal article (1976), the monetary measurement of poverty has relied on defining a reference threshold used to identify individuals considered poor. This poverty line is intended to represent the level of income deemed necessary to meet essential living needs. The Foster, Greer and Thorbecke (FGT) indicator—arguably one of the most widely used due to its simplicity and its ability to measure the incidence, depth and severity of poverty—is based on this logic.

In practice, this threshold may be set exogenously, according to an external poverty standard—for example, based on a basket of basic needs or a national benchmark—independently of the local income distribution. This approach, commonly used in international comparisons and official statistics, facilitates comparability across territories, but may create a disconnect between the reference norm and the distributive structure of local incomes.

This situation is particularly evident in the overseas departments and regions, which are institutionally linked to France but whose economic structures remain markedly different from those of mainland France. In terms of poverty, these territories consistently rank last at the national level, with incidence rates far higher than those observed in metropolitan France (Audoux et al., 2020). However, these results rely on applying a poverty threshold defined from the income distribution of metropolitan France—that is, an external standard, higher than the local threshold and not aligned with the economic structure of overseas territories.

More generally, applying a threshold derived from an external distribution to the one under study amounts to confronting two heterogeneous income structures, and raises a fundamental interpretative question: what does an FGT-type indicator actually measure when the reference threshold is set exogenously relative to the observed distribution? In such a case, the indicator primarily reflects a level of structural divergence, that is, a development gap between the external poverty norm and the local economic reality. The share of poverty stemming from the internal income distribution is entirely obscured by the application of this higher, externally defined threshold.

In other words, when calculated using an exogenous normative threshold higher than the local one, the FGT aggregates two distinct dimensions: internal relative poverty and a structural component resulting from development differentials. Raising the external threshold intensifies the poverty of already vulnerable households and brings new individuals into poverty, making the overall measure difficult to interpret unless these effects are distinguished. Understanding and measuring this mixed nature requires taking into account the difference in level between the local threshold z_L defined from the income distribution of the territory under study, and the external threshold z_N assumed to be higher. This distinction makes it possible to identify the share of poverty specific to the local distribution and that resulting from the macroeconomic gap between territories (development differential).

This is precisely the aim of the dual-threshold FGT formulation proposed in this article. The indicator makes it possible to decompose poverty according to two distinct but complementary measurement frameworks. This expression, referred to for convenience as FGT-H (Hybrid Foster–Greer–Thorbecke) in the remainder of the article, allows us to distinguish internal relative poverty (R), based on the local income distribution, from the effects induced by the development gap between the external norm and the local context.

These latter effects take two complementary forms: (i) an intensification effect (I), reflecting the worsening of poverty among households initially classified as poor when the external threshold is applied; (ii) an extension effect (E), corresponding to the entry of new individuals into poverty solely as a result of the higher threshold.

The empirical application conducted in Mayotte illustrates the relevance of this approach. In 2015, median income there reached barely 15% of the metropolitan level, and the poverty rate calculated using the national threshold stood at 75%. The decomposition reveals that nearly two-thirds of this poverty results from an intensification effect, while the purely local component remains marginal. These results confirm that poverty in Mayotte reflects less an internal inequality in income than a structural development gap relative to the national benchmark.

This FGT thus highlights the respective contributions of the social and structural dimensions in the overall measurement of poverty. The results show that as the differential between thresholds increases the contribution of the structural dimension linked to development becomes predominant in explaining the FGT. This shift tends to obscure the share of relative poverty measured at the local threshold and, consequently, to mask the effects of significant changes in the income distribution of the territory under study.